WHAT IS CLAIMED IS:

1   1. A system comprising:

2   a public EV-DO wireless network having a public network data location register (DLR) and

3   a public network access network control (ANC);

4   a private EV-DO wireless network interfacing with the public EV-DO wireless network

5   and providing private EV-DO wireless data service, the private EV-DO wireless network

6   comprising:

7   a private access network control (pANC) coupled to the public network access

8   network control (ANC) and adapted to provide a link between the private EV-DO network and the

9   public EV-DO network, wherein the private access network control (pANC) is adapted to request

10   session information of a private network EV-DO terminal to perform terminal authentication

11   through the public network data location register (DLR) and to allocate a traffic channel and

12   establish a Switched Virtual Circuit (SVC) to provide a private network connection or an Internet

13   connection according to the received session information; and

14   an access network transceiver system (ANTS) having a defined wireless area,

15   wherein, when one of a public network and a private network is called from a private network

16   EV-DO terminal entering the defined wireless area, the access network transceiver system (ANTS)

17   is adapted to analyze a message sent from the terminal, and to request one of the public network

18   access network control (ANC) or private access network control (pANC) to perform the

19   corresponding public network or private network connection.

1   2. The system according to claim 1, wherein the link between the private EV-DO network

2   and the public EV-DO network comprises an A14 interface.

1   3. The system according to claim 1, wherein the public network data location register

2   (DLR) is adapted to store location information and authentication information of either private or

3   public network EV-DO terminals and to provide information needed for call processing upon a call

4   connection from an arbitrary EV-DO terminal being established.

1   4. The system according to claim 1, wherein the public network data location register

2   (DLR) is adapted to perform at least one of a session creation and release function, a unicast access

3   terminal identifier (UATI) allocation and deletion function, a self database holding function, a

4   session maintenance confirming function, a paging command transmission function, and an

5   interfacing function with a neighboring data location register (DLR).

1   5. The system according to claim 1, wherein the access network transceiver system (ANTS)

2   comprises a router module adapted to determine whether the originated data call is an originating

3   call for connection to the public network or an originating call for connection to the private

4   network based on an identifier contained in a data call originated from the private network EV-DO

5   terminal, to rout the call to an access network control (ANC) in the public EV-DO network upon

6   the originating call being a public network connection originating call, and to rout the originating

7   call to the private access network control (pANC) to be processed in the private network EV-DO

8   network upon the originating call being a private network connection originating call.

1   6. The system according to claim 1, further comprising a pAN_AAA adapted to receive

2   session information on an arbitrary private network EV-DO terminal from the public network data

3   location register (DLR) through the private access network control (pANC) to perform

4   authentication for the corresponding terminal.

1   7. The system according to claim 1, further comprising a private packet data service node

2   (pPDSN) coupled to the private access network control (pANC) and adapted to provide Internet

3   service to the private network EV-DO terminal through an Intranet.

1   8. The system according to claim 1, further comprising a wireless base system manager

2   (WSM) adapted to perform loading, failure, diagnosis, and statistics in the private EV-DO wireless

3   network according to the traffic channel allocation and the SVC establishment by the private

4   access network control (pANC).

1   9. A method comprising:

2   providing a public EV-DO wireless network including a public network data location

3   register (DLR) and a public network access network control (ANC);

4   interfacing a private EV-DO wireless network with the public EV-DO wireless network;

5   the private EV-DO wireless network adapted to perform a network connection request

6   including analyzing a message received from a private EV-DO network terminal to request the

7   public network access network control (ANC) to perform a public network connection or to

8   request the private access network control (pANC) to perform a private network connection upon

9   an access network transceiver system (ANTS) receiving one of a public network call request and

10   a private network call request from the private EV-DO network terminal;

11   the private EV-DO wireless network adapted to perform a session information allocation

12   including requesting and receiving the public network data location register (DLR) to provide

13   terminal session information for terminal authentication performance from the public network

14   access network control (ANC) receiving the public network connection request, or of requesting

15   and receiving the terminal session information for the terminal authentication performance from

16   the private access network control (pANC) receiving the private network connection request by

17   communication through the public network data location register (DLR); and

18   the private EV-DO wireless network adapted to perform a network connection including

19   performing the authentication according the received session information and performing the

20   private network connection with the private access network control (pANC) or performing the

21   public network connection with the public network access network control (ANC).

1   10. The method according to claim 9, wherein the public network data location register

2   (DLR) is adapted to store location information and authentication information of either private or

3   public network EV-DO terminals and to provide information needed for call processing upon a call

4   connection from an arbitrary EV-DO terminal being established.

1   11. The method according to claim 9, wherein the public network data location register

2   (DLR) is adapted to perform at least one of a session creation and release function, a UATI

3   allocation and deletion function, a self database holding function, a session maintenance

4   confirming function, a paging command transmission function, and an interfacing function with

5   a neighboring data location register (DLR).

1   12. The method according to claim 9, wherein the access network transceiver system

2   (ANTS) includes a router module adapted to determine whether the originated data call is an

3   originating call for connection to the public network or an originating call for connection to the

4   private network based on an identifier included in a data call originated from the private network

5   EV-DO terminal, to rout the call to an access network control (ANC) in the public EV-DO network

6   upon the originating call being a public network connection originating call, and to rout the

7   originating call to the private access network control (pANC) to be processed in the private

8   network EV-DO network upon the originating call being a private network connection originating

9   call.